SOUTH DAKOTA STUDENT LEARNING OBJECTIVE PROCESS GUIDE

Teacher:	Chemistry
School:	High School
Evaluator:	

STEP ONE: SLO DEVELOPMENT

Prioritize Learning Content: *Identify standards and content.*	*What is the most important learning that needs to occur during the instructional period? Specify which standard(s) the SLO addresses and Identify the specific data source or trend data used. (1a)*
9-12.P.1.5. Students are able to distinguish among chemical, physical, and nuclear changes.	9-12.N.1.1. Students are able to evaluate a scientific discovery to determine and describe how societal, cultural, and personal beliefs influence scientific investigations and interpretations. 9-12.N.1.2. Students are able to describe the role of observation and evidence in the development and modification of hypotheses, theories, and laws. 9-12.N.2.1. Students are able to apply science process skills to design and conduct student investigations. 9-12.N.2.2. Students are able to practice safe and effective laboratory techniques. 9-12.P.1.1. Students are able to use the Periodic Table to determine the atomic structure of elements, valence number, family relationships, and regions (metals, nonmetals, and metalloids). 9-12.P.1.3. Students are able to predict whether reactions will speed up or slow down as conditions change9-12.P.1.2. Students are able to describe ways that atoms combine. 9-12.P.1.4. Students are able to balance chemical equations by applying the Law of Conservation of Matter. 9-12.P.1.5. Students are able to distinguish among chemical, physical, and nuclear changes. 9-12.P.2.3. Students are able to relate concepts of force, distance, and time to the quantitative relationships of work, energy, and power. 9-12.S.1.1. Students are able to explain ethical roles and responsibilities of scientists and scientific research. 9-12.S.1.2. Students are able to evaluate and describe the impact of scientific discoveries on historical events and social, economic, and ethical issues. 9-12.S.2.1. Students are able to describe immediate and long-term consequences of potential solutions for technological issues. 9-12.S.2.2. Students are able to analyze factors that could limit technological design. 9-12.S.2.3. Students are able to analyze and describe the benefits, limitations, cost, and consequences involved in using, conserving, or recycling resources.

Identify the Student Population: *Describe the context of the class.*	*How many students are addressed by the SLO? Detail any characteristics or special learning circumstances of the class(es). (1b, 1c)*
	60 Chemistry students grades 10-12. One student is currently receiving services through an IEP.

Interval of Instruction: *Specify the time frame in which growth with be measured.*	*What is the time period in which student growth is expected to occur? Identify the length of the course or provide rationale for a time period that is less than the full length of the course.*
	The interval of instruction is from August to December which takes place within a full semester-18 weeks-.Pre-assessment will occur during August and September. Post-assessment will be given in December.

Analyze Data and Develop Baseline: *Detail student understanding of the content at the beginning of the instructional period.*	*Where are my students starting? Summarize student baseline performance and attach additional data if necessary. (1b, 1f)*
	The pretest, American Chemical Society (ASC) multiple choice exam shows that students are starting with limited Chemistry knowledge. 80% of the students know 25%-30% of the content. 15% know 20-25% of the content. 5% knew less than 20% of the content on this pre-test.

Select or Develop an Assessment:	*What specific assessment or instrument will be used to measure goal attainment? Describe the source of the assessment and the connection to identified content and standards. (1c, 1d, 1f, 3d)*

Describe how the goal attainment will be measured.	
	The assessment tool, American Chemical Society (ASC) is a commercial assessment tool that is aligned to the standards on this SLO.

Growth Goal: *Establish expectations for student growth.*	*What can I expect my students to achieve? Establish rigorous expectations for student performance. (1b, 1c)*
	The 48 students who scored 25-30% will score an 80% of above. The 9 students who scored 20-25% will score a 75% or above. The 3 students who scored less than 20% will score a 70% or above.

Provide Rationale: *Describe how your SLO benefits student learning.*	*How do the content, baseline data, assessment and growth goal support student progress and growth? Describe why you chose to develop this SLO. If appropriate, detail the connection to school or district goals. (1a, 1f)*
	Students gain a vast understanding on the chemical element composition. Student growth will be measure by pre/posttest assessments. Hopefully students will meet chemistry standards on the standardized testing. This framework will help students to comprehend the connections that are present in Chemistry.

Learning Strategies: *Describe your plan to meet student needs.*	*How will you help students attain the goal? Provide any specific actions that will lead to goal attainment. (1b, 1e, 1f, 4a)*
	The material will be covered by taking notes, the use of technology, class discussions, experiments, games, group projects and laboratory experiments. A variety of classroom activities will be used to reinforce the concepts and ensure all learning student's styles.

STEP TWO: SLO APPROVAL

The SLO has been reviewed jointly between the teacher and evaluator and will serve as the agreed-upon measure to determine the teacher's student growth rating.

Teacher Signature:

Date:

Evaluator Signature:

Date:

STEP THREE: ONGOING COMMUNICATION

Progress Update: *Describe student progress toward the growth goal.*	*Are your students on track toward meeting the growth goal? Specify the assessment used to track progress. (1f, 3d, 4b)*
	All students are on track to meet the goal. The same pre-test will be given to all students as a post-test by the end of the semester

Strategy Modification: *If necessary, document changes in strategy.*	*Does data suggest I need to adjust my instructional strategy? Describe how you plan to meet the goal. (1e, 4a)*
	Same instructional strategies

SLO Adjustment: *If justified, describe changes to the SLO.*	*Are there circumstances beyond the teacher's control that will impact growth goal? If needed, attach a revised SLO. (1b, 4a)*

	No change SLO stays the same

Teacher Signature:

Date:

Evaluator Signature:

Date:

STEP FOUR: PREPARE FOR THE SUMMATIVE CONFERENCE

This section documents the preliminary student growth rating, which will be discussed during the end-of-year Summative Conference.

SCORING

High Growth: *The growth goal was 86% to 100% attained.*	*What does high growth mean? Detail end-of-course achievement levels that equate to high growth. (4b)*

Expected Growth: *The growth goal was 65% to 85% attained.*	*What does expected growth mean? Detail end-of-course achievement levels that equate to expected growth. (4b)*
	The 43/48 students scored an 80% of above. The 5/9 students scored a 75% or above. The 1/3 students scored a 70% or above. Overall 49/60 students met their goals, so I met 82% of my goal or expected growth.

Low Growth: *The growth goal was less than 65% attained?*	*What does low growth mean? Detail end-of-course achievement levels that equate to low growth. (4b)*

PRELIMINARY STUDENT GROWTH RATING

PRELIMINARY STUDENT GROWTH RATING Based on final assessment data, the student growth rating is:		
LOW	EXPECTED	HIGH
▢	X▢	▢

REFLECTION

Professional Growth: *Detail what you learned.*	*What worked? What should be refined? Describe the support you need to improve instruction and student learning. (1a, 4a)*
	This is a good assessment of students' general knowledge of chemistry. I need to find additional strategies to support my struggling students beyond what is provided in the classroom. I might also consider setting a more rigorous goal for my students who performed at the higher levels.